



GUIDE 1.0

Powered by alex.the.great

Published by April 29th, 2022

Special Thanks to all FGC-9 MKII Designers
and all Supporters.

REST IN PEACE, JSTARK



Safety Advisory:

Before firing your ammo always take proper safety precautions!

Wear safety glasses, hearing protection, and keep your hands away from the ejection port of your weapon when shooting. Don't use damaged or defective ammo. Always inspect your ammo before loading it.

Try to keep your head far away! The best for test shootings is to use a safe firing system.

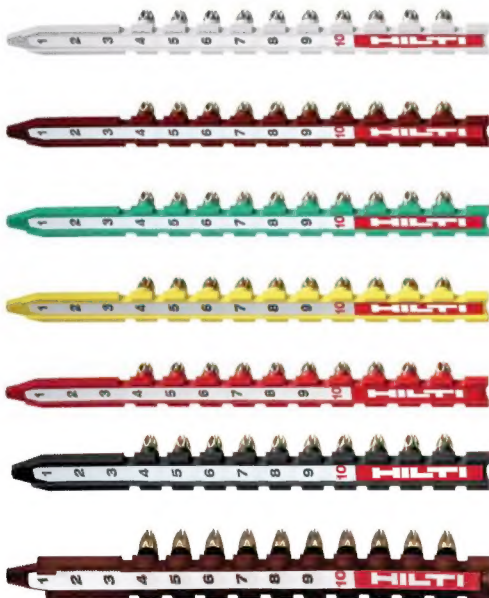
Take a gun vise and attach a string to your Fire Control Group. Than you can shoot far away from gun.

Guide:

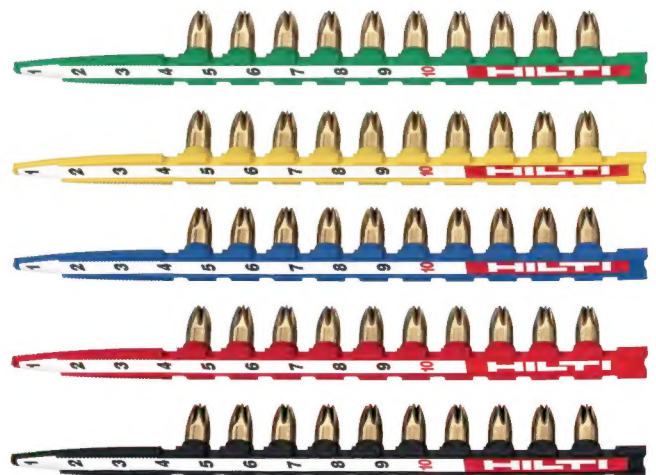
This guide is made, because I needed to know which is the best powder for 9mm.

In the FGC-9 MKII Guide was shared the information about 6.8/11 Hilti Power Red one, but what is with the bigger cartridge 6.8/18 ? Cant we use them instead to have more Powder for almost the same price? This was my main question. But i checked a few other powders too.

6.8/11



6.8/18



At first you need to know:
The cartridges color is important!



white = energy level 2



brown = energy level 2



new brown (brown stripe, black cartridge) = energy level 2



green = energy level 3



yellow = energy level 4



red = energy level 5



black = energy level 6

Useless for 9mm and higher!
For smaller sizes i have no experience.

Just use powder of this cartridges below this line:

The yellow powder is the same like red one,
just less powder per cartridge. Dont buy it.

= best power for 9mm

= burns faster - to much power,
maybe for other Ammo good to use.

If you mix it with red one, you can use
but only for supersonic ammo. Never alone.

For Subsonic not usefull.

Different Numbers on Package?

I ordered the Hilti Powders around the world, because Hilti have different Numbers on the packages. I wanted find out, have they a difference?

A few have names like 6.8/11 M10 other 6.8/11 M40

Than a few have the number: #416474 - others have #416478

On 6.8/18 i found for example #416484 and #50603/0

M10 means 10 x Catridge per Stripe

M40 means 40 x Catridge per Stripe



The numbers #... are serial numbers. The short ones with 5 are old production.

The numbers with #4... are new and most common around the world.

Some are little different, but powder is the same. For Example Red #416474 or Red #416478 is same.

Is the powder of 6.8/11 and 6.8/18 the same?

No.

The powder of red 6.8/11 is lightly green and the powder of red 6.8/18 is full black
and the flakes are little bit bigger.

The 6.8/18 looks more like common gun powder from looks.

But technical data are the same, so i needed to find out:

Can we use 6.8/18 too? Because the amount of powder is more for same price.

BTW: Technical its not powder - its a propellant and looks like granules.



I talked with a Hilti Service Employer:

To find the right one, i talked with a lot of Employers. Finally i found a guy.

He could confirm what i found out already.

6.8/11 and 6.8/18 have the same Powder. The color depends from the chemical process.

The lightly bigger flakes from bigger catridges has black color because of size of the powder.

But its same powder, but have different affect on use them.

Bigger ones: Have more powder and bigger flakes, so it burns lightly faster and is more powerful.

Only RED Hilti, is really interesting us for 9mm, i tested the black one too and its to powerful.

The smaller one red 6.8/11 contains 0.20 grams / or 3.08 grains per blank.

The bigger one red 6.8/18 cointains 0,26 grams / or 4.01 grains per blank.

1000 Bulk Package: You will get around 200 grams / 7.055 ounces of 6.8/11 red.

260 grams / 9.171 ounces of 6.8/18 red.

What powder is the best? It depends from what kind of ammo you want shoot.

I made a test shoot and want share my experience with you guys

I shoot only 9x19mm (Luger, Para, call it like you want) for my test-shooting

Other ammo needs different power.

Most poeple which are in need to use selfmade ammo, will build 9mm guns like FGC-9 MKII.

This is my focus here.


Test 1: Choice of propellant

I shoot on 20 meters / 21.872 yards with FGC-9 MKII (without modifications).

For comparability all with 4.2 grains.

I shoot with an standard threaded barrel
with an suppressor of 9 inch.



 FMJ	9mm Subsonic 147grs		
	6.8/11 red	862 fps	✓
	6.8/18 red	992 fps	✓
	Mix 50/50 split	904 fps	
	Mix 1/3 of 6.8/11*	974 fps	
	Mix 1/3 of 6.8/18*	880 fps	

*rest of the other powder.


Average fps!
I shoot every sort 25 time.

All in one to say: The difference is not so big. Mixing is normally not the best Idea, because the difference of flakes have effects on burning the powder. In my practical test, i dont see problems, but in theoretically you shouldnt mix.



Test 2: Amount of propellant

Here i tested now the amount of propellant. I tested it with 6.8/11 red.
The test with 6.8/18 propellant is the same, just higher FPS.

FMJ	6.8/11 red	124grs	147grs	158grs
	3.8 grains = 0.246 grams	980 fps	723 fps	704 fps
	4.2 grains = 0.27 grams	1122 fps	862 fps	780 fps
	4.4 grains = 0.285 grams	1340 fps	992 fps	820 fps

So you can use less propellant - instead of heavier bullet.
Other amount of propellant is not worthy to share or to dangerous.

HP



I shot all with Hollow Points and Plated FMJ too.

The difference is not so big. Its slower and for Suppressor better choices.

Keep on mind, that your suppressor, the length of barrel have affects on the speed too! Longer Barrel around 8.5" = Full burning of propellant = More Power
Thats a reason too why sniper rifle have longer barrel - and of course for precision.

Brass, different brands of primers, or projectiles have an affect too.

!!! This Guide should be an help for you to choose the right propellant for your 9mm Ammo. !!!

If I could give the community something back, than i am felling honored.
Thanks for reading my guide.

"We dont give a fuck, what you think about us."

- alex.the.great

Free Men Do Not Ask Permission To Bear Arms.

All individuals are entitled to the utility to defend their humanity.
Gun control has failed.
You can't stop the signal.

